



PROFILE OF ECO-FRIENDLY CARDAMOM GROWERS IN IDUKKI DISTRICT OF KERALA

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ABSTRACT

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The present study describes the profile of cardamom growers practicing eco-friendly cultivation in Idukki district of Kerala. The results revealed that majority of the cardamom farmers belonged to the categories of middle age (71.67%), high school education (34.16%), medium annual income (56.66%), small farm size (54.16%), medium farming experience (71.67%), medium training undergone (50.00%), medium mass media exposure (65.00%), medium extension contact (65.00%), medium social participation (60.00%), medium scientific orientation (63.33%), medium innovativeness (50.00%), medium risk preference (60.00%), medium economic motivation (58.33%) and medium environmental concern (66.67%). The above findings depicted that majority of the eco-friendly cardamom growers were in the medium category with respect to their profile characteristics. The study emphasizes that farmers are capable of receiving new technologies because of their medium profile and hence, extension interventions should be made to promote eco-friendly cultivation practices among the cardamom growers.

KEY WORDS: Cardamom growers, Eco-friendly cultivation practices, Profile

INTRODUCTION

India is known as the home of spices and Indian spices are famous all over the world. Cardamom which is known as the 'Queen of spices' is primarily produced in Kerala state. Cardamom is having high export orientation among all spices hence, the usage of chemicals should be minimized to meet the international standards. In this context, eco-friendly farming is the most promising approach to attain the high quality produce to attract the importers and as well as to fetch high price for the final produce. Eco-friendly farming provides an opportunity to reduce the environmental degradation improves the quality of life of the farmers and maintains sustainability. Hence there is every need to establish the prospects of eco-friendly farming in cardamom cultivation. Further, the overview of the profile of the cardamom growers reveals the socio-personal characters and how these characters are going to influence the level of knowledge and extent of adoption of the eco-friendly cultivation practices in cardamom.

MATERIAL AND METHODS

The study was conducted with an *Ex post facto* research design to assess profile of the cardamom growers in Idukki district of Kerala, which was purposively selected, based on the highest area and production of

cardamom in the state. From the selected district two taluks namely Udumbanchola taluk and Devikulam taluk were selected purposively based on the highest area under cultivation. From each of the selected taluk three villages were selected randomly thus making a total of six villages. From each of the selected village respondents were selected by following proportionate random sampling procedure thus making a total of 120 respondents as the sample of the study. After a thorough review of literature and consultation with experts a set of 14 personal, psychological and socio-economic variables were selected. The data was collected through a structured comprehensive interview schedule and analysed using Arithmetic mean Standard deviation, Frequencies and Percentage for drawing meaningful interpretations.

RESULTS AND DISCUSSION

The eco-friendly cardamom farmers were distributed into different categories based on their selected profile characteristics and the results were presented in the Table 1.

The data given in Table 1 illustrated that, majority (71.67%) of the respondents belonged to middle age category, followed by young (15.00%) age category and old (13.33%) age category. From the results, it could be concluded that majority of the respondents belonged to the middle age group. This is due to the fact that income

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from eco-friendly cardamom cultivation is very unpredictable, so the rural youth preferred other employment avenues than agriculture. Very less percentage of farmers in old age category were found cultivating eco-friendly cardamom because of lack of enthusiasm and interest to learn new farming practices in eco-friendly cultivation. These findings were in confirmation with the findings of Chetan (2011), Bihare (2015), Jaganathan *et al.* (2015) and Muthukumar (2016).

The data presented in Table 1 portrayed that 34.16 per cent of the cardamom growers were educated up to high school followed by graduates (31.67%), middle school (24.50%), and primary school (4.17%), can read and write (2.50%), can read only (2.00%) and illiterate (1.00%). From the above findings, it could be inferred that most of the eco-friendly cardamom growers had high school level of education followed by graduate level. Since Kerala is a highly literate state, most of the farmers were educated and the farmers in Idukki district, in particular had a high value on education, believing that only education will enlighten them. This was in conformity with the results of Gills (2012).

It is keenly observed from Table 1 56.66 per cent of the respondents had medium level of annual income followed by high (26.67 %) and low (16.67 %) annual income levels. Annual income of a farmer's family defines the standard of living of the farmer in terms of their economic status. The above results indicated that more than fifty percent of the respondents had medium level of annual income. It might be due to the reason that the increase in demand of the cardamom which was produced organically and also its high export demand than inorganic cardamom. Even though the yields and income were low in the beginning income eventually get stabilized in later stages of farming. This finding was in line with the results of Chetan (2011).

An outlook from the Table 1 inferred that that 54.16 per cent of the respondents had small land holding followed by 29.17 per cent marginal land holding, 11.67 had semi-medium land holding, 4.17 per cent had medium land holding and 0.83 per cent had large land holding. It could be inferred from the above results that the tendency towards nuclear family approach, the sub division and fragmentation of the ancestral farm land from one generation to another generation was the main reason for declining in the land holding size of most of the farmers in the rural areas. Further, potentially practicing eco-

friendly farming on a small scale is viable, practicable and will be of minimum risk for the farmers. The same result was generated by Bihare (2015).

It is evident from the Table 1 that 71.67 per cent of the respondents were grouped under medium farming experience followed by low (15.00%) and high (13.33%) farming experience. The medium experience of the respondents in farming might be attributed to their middle age. Definitely the farming experience is an important factor which influences the farmers to accept, evaluate and experiment the innovative technologies in their farm. But the richness of farming experience is more important than the quantity. Hence, to improve the quality and richness of experience the extension agencies have to conduct extension activities like trainings, result demonstrations, method demonstrations, meetings, exposure visits and group discussions etc. This was in conformity with the results of Pawar (2011).

The Table 1 projected that 50 per cent of the respondents had medium level of training undergone followed by low (35.00%) and high (15.00%) level of training undergone. The probable reason for the above results might be the medium extension contact of the cardamom growers. It indicates that the farmers were not aware about the training programmes conducted by various agencies and the importance of the training programmes conducted. Lack of awareness among the cardamom growers regarding the usefulness of training programs conducted was also one of the reasons for medium level of training undergone. The above result was in line with Midame and Pyasi (2020).

It is clear from Table 1 that 65 per cent of the respondents had medium level of mass media exposure followed by low (28.00%) and high (14.00%) levels of mass media exposure. The probable reason for this trend might be that, in the present day scenario, mass media is the main source of information on changing trends and exploring opportunities. Farmers who were educated had inclination towards better utilization of different mass media such as radio, television, newspapers, mobile application. The farmers with illiteracy and old age might not be utilizing the mass media because of their personal and psychological limitations. This result was in agreement with Jaganathan *et.al* (2015) and Muthukumar (2016).

It is obvious from the Table 1 that 65 per cent of the respondents had medium extension contact followed by low (18.33%) and high (16.67%) extension contact. Farmers who had medium mass media exposure were trying to maintain contact with the spices board officials and the agricultural officers for adoption of better technologies, for various subsidies and other benefits from the government in agriculture and allied sectors. The reason for low extension contact might be lack of extension staff with appropriate knowledge in eco-friendly farming to reach the farmers. This finding was in line with the results of Chetan (2011), Jaganathan *et.al* (2015), Muthukumar (2016) and Aparna (2017).

It is observed from Table 1 that 60 per cent of the respondents had medium level of social participation followed by high (23.33%) and low (16.67%) levels of social participation. Level of social participation shows how the respondents are affiliated to various social institutions, which acts as the venue for group interaction. More than half of the farmers had medium social participation due to the fact that farmers who follow eco-friendly cultivation practices usually create their own groups in order to work efficiently. Extension officers also encourage farmers to form Self-Help Groups (SHGs), youth clubs, or farmer groups to carry out the eco-friendly practices jointly. This finding was in line with the results of Jaganathan *et al.* (2015) and Muthukumar (2016).

It is evident from the Table 1 that 63.33 per cent of the farmers had medium level of scientific orientation, followed by low (25.00%) and high (11.67%) levels of scientific orientation. This pattern might be attributed due to the fact that majority of the farmers who were mostly practicing eco-friendly farming were mostly using scientific methods in agriculture and further they had regular touch with the extension personnel who helped them to adopt the modern eco-friendly production technologies specified by the scientists. The result was in agreement with Muthukumar (2016).

An overview of table 1 indicated that 50 per cent of the respondents had medium level of innovativeness followed by low (28.33%) and high (21.67%) levels of innovativeness. The above trend might be due to the fact that majority of the eco-friendly cardamom growers were of middle aged had high school level of education, medium level of mass media exposure and medium level of extension contact which favored them to try for new technologies. This motivated the farmers to update their

knowledge and skills time to time and readily accept the new technologies in their farming. In contrary, some of the farmers were of more traditional type with less education, low extension contact and low mass media exposure which made them unable to reach out for changes towards modern technologies, thus had low innovativeness. It was in conformity with Pawar (2011).

It is indicated from the Table 1 that 60.00 per cent of the respondents had medium risk preference followed by high (25.00%) and low (15.00%) of risk preference. Farmers live in an environment that is risky. Because the future is unpredictable, risk cannot be eliminated. Adoption of successful eco-friendly cultivation practices depend on taking the right risks, managing the risks and balancing the risk factor thereby increasing the profits. Further, this trend might be due to the fact that majority of the cardamom growers were small and marginal farmers who had small land holdings. This might have prevented them in taking much risk over farming. This result was in agreement with Sivaraj (2017).

The data pertaining to Table 1 revealed that 58.33 per cent of the respondents had medium level of economic motivation followed by low (21.67%) and high (20.00%) level of economic motivation. Economic motivation will have a greater urge to increase the farming efficiency in terms of cost benefit ratio. But farmers who were practicing eco-friendly practices were more concerned about the risks towards the environment than the financial gain. They always think in terms of minimizing the usage of chemical inputs and at the same time maximizing the profits. This finding was in line with the results of Ananthnag (2011) and Pawar (2011).

The data in Table 1 depict that that 66.67 per cent of the respondents had medium level of environmental concern followed by low (20.00%) and high (13.33%) levels of environmental concern. Majority of the farmers who were practicing eco-friendly farming were more concerned about the environment and biodiversity conservation. Usage of chemical fertilizers and pesticides were opposed by the farmers who were practicing eco-friendly farming. More concern showed by such farmers towards environment might be due to their frequent exposure to the news reports on environmental hazards. Farmers were also aware that eco-friendly agriculture can maintain a balance in the ecosystem. Further, they also knew that eco-friendly farming was a holistic production management system that promotes and enhances agro-

Table 1. Distribution of eco-friendly cardamom growers according to their profile**(n = 120)**

S. No.	Variables	Category	Frequency (f)	Percentage (%)	Mean	S.D.
1.	Age	Young (<35 years)	18	15.00	-	-
		Middle (36-55 years)	86	71.67		
		Old (>56 years)	16	13.33		
2.	Education	Illiterate	1	1.00	-	-
		Can read only	2	2.00		
		Can read and write	3	2.50		
		Primary school	5	4.17		
		Middle school	30	24.50		
		High school	41	34.16		
		Graduate	38	31.67		
3.	Annual income	Low	20	16.67	-	-
		Medium	68	56.66		
		High	32	26.67		
4.	Farm size	Marginal holding	35	29.17	-	-
		Small holding	65	54.16		
		Semi-medium holding	14	11.67		
		Medium holding	5	4.17		
		Large holding	1	0.83		
5.	Farming experience	Low	18	15.00	25.63	7.97
		Medium	86	71.67		
		High	16	13.33		
6.	Training undergone	Low	42	35.00	10.68	4.39
		Medium	60	50.00		
		High	18	15.00		
7.	Mass media exposure	Low	28	23.33	15.37	2.98
		Medium	78	65.00		
		High	14	11.67		
8.	Extension contact	Low	22	18.33	32.67	4.81
		Medium	78	65.00		
		High	20	16.67		
9.	Social participation	Low	20	16.67	1.38	0.82
		Medium	72	60.00		
		High	28	23.33		
10.	Scientific orientation	Low	30	25.00	12.90	1.95
		Medium	76	63.33		
		High	14	11.67		
11.	Innovativeness	Low	34	28.33	31.40	6.38
		Medium	60	50.00		
		High	26	21.67		
12.	Risk preference	Low	18	15.00	26.75	4.95
		Medium	72	60.00		
		High	30	25.00		
13.	Economic motivation	Low	26	21.67	20.23	5.10
		Medium	70	58.33		
		High	24	20.00		
14.	Environmental concern	Low	16	13.33	4.03	0.99
		Medium	80	66.67		
		High	24	20.00		

ecosystem health including biodiversity, biological cycles and soil biological activity. Similar to the findings of Aparna (2017) and Sivaraj (2017).

The results revealed that majority of the eco-friendly cardamom farmers belonged to middle age group, had high school level of education with medium annual income and small farm size. Majority of the members had medium farming experience, medium training undergone, medium mass media exposure, medium extension contact, medium social participation, medium scientific orientation, medium innovativeness, medium risk preference, medium economic motivation and medium environmental concern. Since majority of the eco-friendly cardamom growers were in medium level category with respect to most of their independent variables selected for the study. Hence there is immediate need to promote the ideology of eco-friendly cultivation practices among cardamom growers. In order to promote this ideology of eco-friendly farming, it is crucial to improve farmer's level of knowledge and extent of adoption. Therefore, it is suggested to organize training programs, field trials, method demonstrations, result demonstrations, farmer field schools etc. on eco-friendly farming practices and thereby transfer the suitable technology and timely inputs for increasing the extent of adoption.

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